UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,284	04/08/2004	Ricky Ah-Man Woo	9600	8621

27752 7590 12/11/2007

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION - WEST BLDG.
WINTON HILL BUSINESS CENTER - BOX 412
6250 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER	
YOO, REGINA M	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
12/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/820,284	WOO ET AL.	
	Examiner	Art Unit	
	Regina Yoo	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-126* is/are pending in the application.

4a) Of the above claim(s) *21-126* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/17/04, 12/18/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group A(I) – claims 1-20 - in the reply filed on 11/05/2007 is acknowledged.

2. Claims 21-126 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected groups, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/05/2007.

Claim Objections

3. Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, the subject matter of claim 17 - that the performance of a1) and a2) is overlapping appears to improperly dependent on claim 18 where the performance does not overlap between the two steps. It appears that the claim 17 is more properly dependent on claim 16.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 9, 13-14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Demarest (6361752) (where the claims are deemed to have the effective date of 4/16/2003).

Demarest ('752) discloses a method of flattening a perfume-release profile from a heated-wick perfume composition-dispensing device (see entire document, particularly Figures 6-12) comprising:

a) applying heat to the wick to achieve a wick temperature sufficient to increase the rate of volatilization of at least one component of the perfume composition (see entire document, particularly Col. 2 lines 45-55, Col. 9 line 1 to Col. 10 line 17);

b) reducing the heat to achieve a wick temperature sufficient to decrease the rate of volatilization of the at least one component of the perfume composition (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-40 where the timer or the detector 33 switches off the coils to reduce/eliminate heat to the wick);

c) maintaining the reducing heat for a time sufficient to allow for back-flow of at least one component of the perfume composition (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-54 where the heating coil is utilized for heating only during certain conditions/times such as after dark - which occurs every 10-12 hours where this time period/gap is deemed sufficient to allow for back flow of all or a portion of the component of the perfume composition); and

repeating a)-c) (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-54 wherein the device is reactivated/triggered and perfume dispensed after a certain time or when a certain condition is sensed).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demarest (6361752) as applied to claim 1 above, and further in view of Hasegawa (4663315).

Demarest ('752) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

As to Claims 2-4, while Demarest ('752) discloses that the wick is heated to increase the rate of volatilization of at least one component of the perfume composition,

Demarest ('752) does not appear to specifically teach that the wick temperature is greater than or equal to about 40°C or about 60°C, or about 80°C.

It was well known in the art at the time of invention to provide a wick temperature greater than or equal to 40°C or 60°C or 80°C in a heated-wick perfume composition-dispensing device. Hasegawa ('315) exemplifies a method of vaporizing a perfume composition from a heated-wick perfume composition-dispensing device (see entire document, particularly Abstract, Col. 4 line 12 to Col. 5 line 18 and Figures 1-5) where a wick (1) used to absorb a perfume composition is heated by a heating element (4) and the temperature of the wick is about 70°C to about 130°C in order to vaporize the perfume composition (see entire document, particularly Col. 9 lines 17-29, specifically lines 20-22 and 27-29).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide a wick temperature of equal to or greater than 40°C or 60°C or 80°C in the method of Demarest in order to provide a temperature adequate to vaporize the perfume composition off the wick as exemplified by Hasegawa.

As to Claims 5-8, Hasegawa ('315) discloses that the wick temperature required to vaporize perfume composition is at minimum about 30°C (see Col. 9 line 28), it would have been well within the purview of one of ordinary skill in the art to provide a wick temperature of less than 30°C in order to reduce/decrease the rate of volatilization of the perfume composition. Only the expected results would be attained.

Thus, it would have been obvious to one of ordinary skill in the art then that the temperatures disclosed by Hasegawa ('315) will provide a difference between wick temperatures at a) and c) from about 10°C to about 100°C or from about 20°C to about 80°C or from about 40°C to about 60°C (for example, the wick temperature upon heating is at 70°C (the lower most preferred heated wick temperature – see Col. 9 line 29) and the wick temperature after reduction of heat is 29°C (see Col. 9 line 28 where the highest possible wick temperature without heating is deemed at 29°C), the difference is 41°C) and it would have been obvious to one of ordinary skill in the art to provide such a temperature difference in the method of Demarest in order to reduce the perfume release from the heated-wick perfume composition-dispensing device.

Thus, Claims 2-8 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Demarest ('752) and Hasegawa ('315).

9. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demarest (6361752).

Demarest ('752) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

While Demarest ('752) does not appear to specifically teach that the time sufficient for back-flow of all or a portion of the components of the perfume composition is from about 17 minutes to about 72 minutes or from about 20 minutes to about 60 minutes or about 30 minutes, Demarest ('752) does discloses that a timer is used to

control the operation of the heated-wick perfume composition-dispensing device so that the device operates at certain times during the day and it would have been obvious to one of ordinary skill in this art at the time of invention to program the timer such that the down time between each operation of the device (i.e. heating of the wick to dispense perfume) is a period from about 17 minutes to about 72 minutes or from about 20 minutes to about 60 minutes or about 30 minutes in order to obtain a desired emission frequency, during which time the perfume will have sufficient time to achieve back-flow.

10. Claims 1 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pu (GB 2279010) in view of Demarest (6361752).

As to Claims 1 and 16, Pu ('010) discloses a method of flattening a perfume-release profile from a heated-wick perfume composition-dispensing device, which comprises at least a first and second wick (70) that draws, respectively, from at least a first and a second perfume composition reservoir (60) (see entire document, particularly Figures 1-5, p. 7 lines 13-15 and p. 13 lines 15-22), comprising:

a1) applying heat to the first wick to achieve a wick temperature sufficient to increase the rate of volatilization of at least one component of the perfume composition (see entire document, particularly p. 10 line 23 to p. 11 line 16);

b1) reducing the heat to achieve the first wick temperature sufficient to decrease the rate of volatilization of the at least one component of the perfume composition (see entire document, particularly p. 11 lines 17-23 and p. 12 line 16 to p. 13 line 14);

a2) applying heat to the second wick to achieve a wick temperature sufficient to increase the rate of volatilization of at least one component of the perfume composition (see entire document, particularly p. 11 lines 17-18 and 23-26 to p. 12 line 1); and

b2) reducing the heat to achieve the second wick temperature sufficient to decrease the rate of volatilization of the at least one component of the perfume composition (see entire document, particularly p. 12 line 16 to p. 13 line 14).

While Pu ('010) does not appear to specifically teach the step where the reduced heat is maintained for a time sufficient to allow for back-flow of at least one component of the perfume composition nor a step where the above steps are repeated, it was known in the art at the time of invention to maintain/allow sufficient time in between reduction of heat to the wick and reapplication of heat to that wick and to repeat these steps.

Demarest ('752) discloses a method of flattening a perfume-release profile from a heated-wick perfume composition-dispensing device (see entire document, particularly Figures 6-12) comprising:

a) applying heat to the wick to achieve a wick temperature sufficient to increase the rate of volatilization of at least one component of the perfume composition (see entire document, particularly Col. 2 lines 45-55, Col. 9 line 1 to Col. 10 line 17);

b) reducing the heat to achieve a wick temperature sufficient to decrease the rate of volatilization of the at least one component of the perfume composition (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-40 where the timer or the detector 33 switches off the coils to reduce/eliminate heat to the wick);

c) maintaining the reducing heat for a time sufficient to allow for back-flow of at least one component of the perfume composition (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-54 where the heating coil is utilized for heating only during certain conditions/times such as after dark - which occurs every 10-12 hours where this time gap is deemed sufficient to allow for back flow of all or a portion of the component of the perfume composition); and

repeating a)-c) (see entire document, particularly Col. 3 lines 30-37 and Col. 5 lines 37-54 wherein the device is reactivated/triggered and perfume dispensed after a certain time or when a certain condition is sensed) in order to release volatile materials into the air in a room.

It would have been obvious to one of ordinary skill in this art at the time of invention to maintain the reduced heat applied to the first and second wicks for a time sufficient to allow for back-flow of at least one component of the perfume composition associated with each wick and to repeat above steps through use of a timer, for example, in the method of Pu in order to first avoid mixing the perfume composition associated with each wick and secondly to automatically and repeatedly emit the perfume compositions with a desired emission frequency so as to provide a volatile material to the air as well as to avoid saturating the air with constant emission as shown by Demarest.

As to Claim 15, Pu ('010) discloses that the heat controlling circuit (42) used for conducting heat to the heating mechanism (41) used to heat the wick (70) is comprised

of a variable resistor (426) which controls the oscillating frequency where higher the frequency, the higher the temperature of the heating mechanism (see entire document, particularly p. 9 lines 1-27 and p. 10 lines 1-3) and this variable resistor (426) is used by the user to adjust /control the heating system (see entire document, particularly p. 12 lines 10-15) so as to provide a higher wick temperature in at least one repeated heating steps than in the previous heating steps when the vaporizing temperature of a perfume composition used in one of the repeated heating steps is higher or to control the vaporizing speed of the perfume composition to obtain a desired perfume gas density to provide/release gas with different densities.

As to Claim 17, Pu ('010) discloses that performance of a1) and a2) overlaps for a period of about 100% of the duration of a1) (see entire document, particularly p. 12 lines 2-9).

As to Claim 18, Pu ('010) discloses that the performance of a1) and a2) does not overlap (see entire document, particularly p. 11 lines 17-26).

As to Claim 19, while Pu ('010) discloses that the steps a1) and a2) do not overlap (see entire document, particularly p. 11 lines 17-26), Pu ('010) does not appear to specifically teach a specific period/gap between the two steps. However, it was well known in the art at the time that switching of one operation to the next operation takes some time and it would have been obvious to one of ordinary skill in this art at the time

of invention that first there is a time gap between step a1) and when the user makes a second selection that initiates the step a2) in terms of the time user takes to decide on and actuate the second selection, and secondly in operational terms for the first reciprocating assembly to disengage and be restored before the second reciprocating assembly is able to travel and close the circuit to activate and conduct heat when operated in a serial fashion as disclosed in order to provide two separate perfume scents.

Thus, Claims 1 and 15-19 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Pu ('010) and Demarest ('752).

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7223361. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims disclose a method of heating a volatile composition, which includes a perfume composition, through a wick and to reduce heat and maintaining the reduced heat state (see claim 1 (b) (ii) of the patent) and repeating the above steps, where these steps as disclosed in the patent will flatten a perfume - release profile.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Yoo whose telephone number is 571-272-6690. The examiner can normally be reached on Monday-Friday, 10:00 am - 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RY

GLADYS JP CORCORAN
SUPERVISORY PATENT EXAMINER